



## MASTER FILE

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### DSSD CENSUS 2000 PROCEDURES AND OPERATIONS MEMORANDUM SERIES # N - 1

MEMORANDUM FOR Brian Monaghan  
Lead Assistant Division Chief for Censuses  
Field Division

From: Howard Hogan *Howard Hogan*  
Chief, Decennial Statistical Studies Division

Prepared by: Christine Lynch  
Decennial Statistical Studies Division

Subject: Specifications for the Quality Assurance for Update/Leave

#### I. INTRODUCTION

Update/Leave (U/L) is an operation for updating Address Binders (ABs) and map spots, and delivering questionnaires to all Housing Units (HUs) in U/L areas. The job of the U/L enumerator is to:

- A. Deliver the correct pre-addressed census questionnaire to each HU or prepare an unaddressed questionnaire for HUs missing from the list
- B. Update features on maps to reflect ground truth, verify existing map spots and add map spots for HUs missing from the list.
- C. Assign the appropriate action code to each HU in the AB and list any HU missing from the AB on the add page.
- D. Identify any Special Places (SP) missing from the AB, show the location on the block map with a map spot number, and notify the appropriate SP personnel.

These specifications provide Quality Assurance (QA) objectives and methodology to assure that the quality of deliverables meets the quality requirements of the Bureau of the Census (BOC).

## **II. QUALITY ASSURANCE OBJECTIVE**

The BOC is concerned that errors made due to data collection are not clustered. This QA program is designed to assure that errors are not disproportionately affecting specific communities. However, this QA program does not provide protection against errors due to delivery of pre-addressed questionnaires to the wrong HU, or intentional lack of delivery of the questionnaires on the part of the enumerator.

The U/L has several components dealing with delivering forms, updating maps, and updating the ABs. Therefore, QA is designed to control and improve the quality of each of these tasks. The U/L QA program focuses on three general principles to help ensure the best quality product possible:

- ▶ Prevent errors caused by lack of understanding on the part of the enumerator.
- ▶ Identify and correct significant coverage and content errors.
- ▶ Improve enumerator performance throughout the operation by providing performance information.

The first objective is accomplished via an initial review of the enumerator by the crew leader (CL), or CL assistant. The second is achieved by identifying and correcting assignment areas (AA) with unacceptable levels of errors in a dependent review. Structured feedback from the CL to the enumerator will be used to accomplish the third objective. A quality information system will be developed and maintained for the tracking and documenting of the process.

## **III. PERSONNEL AND TRAINING REQUIREMENTS**

The CL or the CL assistant will be responsible for performing QA requirements.

## **IV. INITIAL OBSERVATION**

### **A. Methodology**

An initial observation of each enumerator is performed by the CL or the CL assistant to ensure that the enumerator can produce work according to the established procedures and that no errors are committed due to lack of understanding on the part of the enumerator.

1. The observation must take place during the enumerator's first week on the job, while he/she is working on his/her first AA.

2. The observation covers ten HU and SP.
3. During the observation, the CL and CL assistant checks for critical errors, as defined in Section VII. A.
4. The CL and CL assistant will also discuss any other errors with the enumerator, but they will not be considered critical errors for QA purposes.
5. All errors are corrected.

**B. Sample**

1. The initial observation must be performed on every enumerator.
2. The initial observation will cover ten HUs.

**C. Decision**

After observing ten HUs the CL and CL assistant makes quality decisions on how well the enumerator performed in delivering questionnaires, updating maps, and listing addresses. If the enumerator commits any critical errors, the CL and CL assistant must retrain the enumerator on the correct procedure. If the CL is satisfied that the enumerator understands the procedures after retraining, the enumerator may continue working. Upon return to the field, a retrained enumerator will undergo another initial observation. The CL and CL assistant will check for all types of errors, not just those on which the enumerator has previously failed. If the enumerator commits no critical errors he/she may continue working.

**D. Documentation**

The results of this observation will be documented on Form D-XXX, the QA Observation Record, which is presented as Attachment A.

**V. DEPENDENT CHECK**

**A. Methodology**

At the completion of each AA, a dependent QA check is performed on a sample of the work. The dependent check is designed to identify significant errors and provide an assessment of each AA. A decision is made to accept or reject the AA, based on the number of errors in the sample. All errors identified will be corrected.

## **B. Sample**

### **1. Selecting the sample**

- a. The CL and CL assistant will select two random starts from each AA using the table provided in Attachment D.
  - (1) Beginning in the upper left corner of the table, the CL and CL assistant will choose the first random number and compare it to the number of pages in the AB.
  - (2) If the random number from the table is greater than the number of pages, the CL and CL assistant will cross out the number and proceed to the next number on the table. (Move across the table from left to right. Upon completion of a row, proceed to the left-most number in the following row.) Otherwise, the CL and CL assistant will circle the number.
  - (3) The circled number corresponds to the page in the address binder where the sample will begin. The first HU listed on the page will be called the designated (HU).
  - (4) The CL and CL assistant will repeat this process to choose the second starting point.

### **2. Canvassing the QA Segments**

- a. From each designated HU, the CL and CL assistant will canvass in a clockwise direction (always making right turns).
- b. The CL or CL assistant will canvass six consecutive HUs and SPs on the ground.
- c. The CL or the CL assistant will compare the HUs identified on the ground to what is listed in the AB.

## **C. Decision**

After completing the dependent check, the CL and CL assistants will make two quality decisions based on the number of: 1) Mapping errors and 2) Listing errors. If more than one error is found, the AA fails dependent QA and the enumerator is given retraining as required. The failed AA is reworked and completed by an available enumerator.

**D. Documentation**

The results of the check are documented on the QA Dependent Check Record, Form D-YYY located on Attachment B.

**VI. FINAL OFFICE REVIEW OF ADDRESS BINDERS**

**A. Methodology**

The CL will do a cursory review of each enumerator's AB as a part of the daily meeting that crew leaders conduct with the enumerators. However, a formal review and edit of each completed AB is done in the Local Census Offices (LCOs). Each AB must pass the review before being sent to the Data Capture Center.

An office clerk looks at each address listing page, correcting any obvious errors and tallies errors that cannot be corrected. The errors for which the clerks will be looking for are defined in Section VII. B.

**B. Sample**

All (100 percent) ABs will be included in the office review.

**C. Decision**

An AA with an error rate of 5 percent or more must be sent back to the field for rework.

**D. Documentation**

The results of this review will be recorded on the QA Office Review Record, Form D-ZZZ located on Attachment C.

**VII. DEFINITION OF ERRORS**

**A. Initial Observation**

**1. Delivery Errors**

- a. Failure to deliver the correct questionnaire to a HU.
- b. Failure to properly complete a label of a questionnaire using the appropriate form type.

**2. Listing Errors**

- a. Failure to list a new HU on the HU add page.
- b. Failure to list a new SP on the SP add page.
- c. Failure to record either a house number, street name or physical description for a new HU and SP.
- d. Failure to transcribe the processing identification (ID) number from the questionnaire to the add page for a new HU.
- e. Failure to record the name, contact name, and telephone number of an added SP.
- f. Failure to enter the correct action code on a line on the address listing page.

**3. Mapping Errors**

- a. Failure to verify the map spot number of a previously listed HU and SP.
- b. Failure to add a map spot for a new HU and SP in the correct census block.
- c. Failure to delete map spots for HUs and SPs that do not exist or are no longer habitable.
- d. Failure to add a missing street to the map, delete a non-existent street from the map, or correct incorrect street names.

**B. Dependent Check**

**1. Listing Errors**

- a. Failure to list a new HU on the HU add page.
- b. Failure to list a new SP on the SP add page.
- c. Failure to record either a house number, street name or physical description for a new HU and SP.
- d. Failure to transcribe the processing ID number from the questionnaire to the add page for a new HU.

- e. Failure to record the name, contact name, and telephone number of an added SP.
- f. Failure to enter the correct action code on a line on the address listing page.

2. Mapping Errors

- a. Failure to map spot a new HU and SP in the correct census block.
- b. Failure to delete map spots for HUs and SPs that are not found or are no longer habitable.
- c. Failure to add a missing street to the map, delete a non-existent street from the map, or correct an incorrect street names.

C. Final Office Review

- a. Failure to enter an action code on a line on the address listing page.
- b. Added map spot with no corresponding line for an HU on the HU add page or Sp on the SP add page.
- c. Completed HU and SP add page line with no corresponding map spot.
- d. Added HU and SP listed on the add page on a street name that does not appear on the block map.
- e. Added HU and SP listed on the add page without a house number, street or physical description.
- f. Added SP without a special place name, contact name, and telephone number.
- g. Duplicate map spot number within a census block.
- h. Deleted map spot number (or change in parentheses number) without a corresponding action code.

## VIII. RECORD KEEPING

### A. Quality Assurance Observation Record

#### 1. Control Information

- a. Enumerator ID
- b. Verifier ID
- c. Date
- d. Regional Census Center (RCC) Code
- e. LCO Code
- f. Number of units observed

#### 2. Performance Information

- a. Enter a *Tally* for every time the enumerator **did not** do one of the following:
  - (1) Deliver the correct questionnaire to a HU.
  - (2) Properly complete a label of a questionnaire using the appropriate form type.
  - (3) List a new HU on the add page.
  - (4) List a new SP on the SP add page.
  - (5) Record either a house number, street name or physical location for a new HU and SP.
  - (6) Transcribe the processing ID number from the questionnaire to the add page for a new HU.
  - (7) Record name, contact name, and phone number for an added SP.
  - (8) Enter the correct action code on a line on the address listing page.



- (9) Verify the map spot number of all previously listed HU and SPs.
- (10) Add a map spot for a new HU and SPs in the correct census block.
- (11) Delete map spots for HUs and SPs that do not exist or are no longer habitable.
- (12) Add to, delete from, and correct the map as appropriate.

3. Decision Information

- a. Total number of errors for each error type.
- b. Decision (*Pass* or *Fail*) for each error type.

4. Submitting Form

The LCO will send the form to Jeffersonville. The address to which the form will be sent will be communicated to the field staff at a later date.

B. Quality Assurance Dependent Check Record

1. Control Information

- a. Enumerator ID
- b. Verifier ID
- c. Date
- d. RCC Code
- e. LCO Code
- f. Number of HU in the AB

2. Performance Information

- a. Block number
- b. Line number

- c. Was the HU and SP missing from the address binder?
- d. Is the action code correct?
- e. Was the physical location and/or mailing address correctly listed?
- f. Is the appropriate SP information listed?
- g. Is the feature missing from the AA map?
- h. Is there a feature on the AA map that is not on the ground?
- i. Is the AA map feature correctly annotated?
- j. Number of HUs in error.

3. Decision Information

- a. Total for each type of error (each lettered column).
- b. Total number of HU observed.
- c. Total number of HUs in error.
- d. Quality decision (*Pass* or *Fail*)

4. Submitting the Form

The LCO will send the form to Jeffersonville. The address to which the form will be sent will be communicated to the field staff at a later date.

C. Quality Assurance Final Office Review Record

1. Control Information

- a. RCC code
- b. LCO code
- c. AA code
- d. Verifier ID
- e. Number of addresses on the listing page.

f. Number of add pages.

g. Number of map sheets.

2. Performance Information

a. Number of missing action codes.

b. Number of added map spots with no corresponding entry on the add page.

c. Number of HU and SP on the add pages with no corresponding map spot.

d. Number of HUs and SPs on add pages whose street name does not appear on the map.

e. Number of HU and SP on the add page without house number, street name or physical description.

f. Number of added SP without special place name, contact name, and phone number.

g. Number of duplicate map spot numbers within a census block.

3. Decision Information

a. Number of units observed.

b. Total number of tallies.

c. Action taken.

4. Submitting the Form

The LCO will send the form to Jeffersonville. The address to which the form will be sent will be communicated to the field staff at a later date.

**IX.    Contacts**

Any questions regarding this document should be directed to Christine Lynch on (301) 457-2986 or Jimmie Scott on (301) 457-4210.

**Attachments**

cc:

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**Update Leave  
Quality Assurance Observation Record  
United States Census 2000**

Enumerator ID	Verifier ID	Date	RCC Code	LCO Code	No. Units Observed	
<b>DELIVERY ERRORS</b>						
The enumerator did not:					Tally	Total
a. Deliver the correct questionnaire to a HU.						
b. Properly complete a label of a questionnaire using the appropriate form type.						
<b>Total Number of Delivery Errors</b> →						
<b>LISTING ERRORS</b>						
The enumerator did not:					Tally	Total
a. List new HU on the HU add page						
b. List a new SP on the SP add page						
c. Record either a house number, street name or physical description for a new HU and SP.						
d. Transcribe the processing ID number from the questionnaire to the add page for a new HU.						
e. Record the name, contact name, and phone number of an added SP.						
f. Enter the correct action code on a line on the address listing page						
<b>Total Number of Listing Errors</b> →						
<b>MAPPING ERRORS</b>						
The enumerator did not:					Tally	Total
a. Verify the map spot number of a previously listed HU and SP.						
b. Add HU and SP on the add page whenever necessary.						
c. Add a map spot for a new HU and SP in the correct census block.						
d. Delete map spots for HUs and SP that do not exist or are no longer habitable						
e. Add a missing street, delete a non-existent street, or correct an incorrect street on the map.						
<b>Total Number of Mapping Errors</b> →						
<p><b>Scoring Criteria:</b> For each error type, if Total Number of Errors is 0, circle "Pass" otherwise circle</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <b>Delivery</b>              Pass    Fail           </div> <div style="text-align: center;"> <b>Listing</b>              Pass    Fail           </div> <div style="text-align: center;"> <b>Mapping</b>              Pass    Fail           </div> </div>						

Upd. /ve  
Quality Assurance Duplicate Check Record  
United States Census 2000

Enumerator ID		Verifier ID				Date	RCC Code	LCO Code	HU's in AB	
Block number	Line number	HU and SP missing from add page (a)	Incorrect physical location and/or mailing address in address binder (b)	Processing ID of added HU missing from add page (c)	Missing SP information (d)	Incorrect action code for HU and SP in address binder (e)	HU and SP not mapped in the correct census block (f)	Map spot not deleted for non-existent/uninhabitable HU and SP (g)	Feature or name incorrect on AA map (h)	HUs in error
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Totals										
Total No. of HUs Observed =		Total no. of HUs in error (last column) =				If 0 or 1, circle "Pass", otherwise circle "Fail"		Pass		Fail

**Update Leave**  
**Quality Assurance Final Office Review Record**  
**United States Census 2000**

RCC	LCO	AA	Verifier ID	Number of address listing pages	Number of add pages	Number of map sheets	
<b>ERROR</b>						<b>Tally</b>	<b>Total</b>
Missing action code							
Added map spot with no corresponding HU and SP on the add page							
Completed HU and SP on the add page with no corresponding map spot							
Added HE and SP on add page on a street that does not appear on the block map							
Added HU and SP listed on the add page without a house number, street name or physical location description							
Added SP listed without a special place name, contact person, and telephone number							
[ ] cate map spot number within a census block							
Deleted map spot number (or change in parentheses number) without a corresponding action code							
Number of units observed				Total number of Tallies			
Decision:      Pass      Fail							

## Tables of Random Starts

83	60	87	53	74	30	37	43	35	8	46	90	40	20	12	33
37	67	96	70	19	38	41	2	24	66	41	33	64	80	96	84
86	8	44	33	99	40	63	44	48	29	37	71	63	92	64	81
28	89	6	15	41	12	30	73	61	52	76	28	51	85	9	48
89	90	17	99	100	86	93	21	64	84	77	53	83	4	55	15
47	31	97	91	38	61	74	19	84	26	71	24	96	57	43	27
81	91	56	21	33	1	98	18	5	16	6	11	95	9	30	53
7	77	34	45	1	90	43	26	49	61	77	72	32	41	95	35
32	20	34	79	42	53	37	88	11	31	89	18	20	68	40	29
38	40	88	60	18	47	60	86	56	96	52	68	94	1	76	21
67	35	46	13	42	41	41	58	27	66	5	78	93	52	41	95
20	39	3	86	8	4	99	51	44	41	67	44	71	27	14	60
58	40	13	67	69	3	16	81	18	69	22	75	62	49	94	35
52	4	79	79	50	15	63	97	26	48	68	1	37	98	91	56
78	38	20	67	47	87	73	77	38	6	48	3	62	82	34	36
21	41	52	16	76	91	12	68	77	29	59	76	95	53	26	89
62	15	22	16	54	45	84	13	38	72	10	1	46	83	59	29
86	96	77	72	10	40	77	36	63	52	41	15	79	80	59	25
44	26	76	2	82	68	75	5	94	15	43	4	66	25	47	4
15	19	79	66	73	35	77	89	38	88	48	97	66	23	24	64
2	43	40	21	37	55	56	89	73	13	60	18	64	60	2	60
98	51	68	33	92	59	1	11	74	52	16	75	64	15	82	90
30	68	20	58	51	32	82	1	83	92	11	34	60	18	11	45
46	97	4	94	59	96	59	48	87	52	62	46	11	59	43	97
91	23	41	23	73	6	9	31	29	38	66	53	30	74	63	84
57	16	90	63	94	52	27	40	54	34	30	12	39	14	65	77
49	41	28	1	55	82	70	2	39	91	31	21	11	96	1	51
56	41	2	40	20	49	4	14	23	99	43	24	53	4	50	65
85	94	48	31	84	56	15	46	49	47	27	9	34	100	43	65
96	97	72	76	47	38	83	21	95	15	70	62	81	68	52	36
74	35	9	72	30	4	51	17	48	80	32	48	75	51	16	38
60	96	12	67	41	62	13	56	26	50	51	21	22	21	65	99
2	88	44	48	16	1	47	71	11	83	33	23	22	73	2	29
69	88	46	30	45	23	68	5	23	66	76	34	13	19	11	41
63	10	45	96	2	60	28	95	57	90	19	65	65	56	70	48
13	74	88	44	44	51	48	20	71	79	96	98	84	18	56	4
77	60	11	66	96	84	45	78	60	48	44	18	93	75	86	18
63	15	27	57	95	66	63	94	8	40	32	67	42	35	44	30
61	9	64	90	15	15	95	68	54	88	11	40	4	24	36	92
88	87	14	84	96	12	42	60	88	41	72	53	42	16	74	78